Questions 1-9: In “your own words” describe each of the following terms (do not plagiarize from the book). Then give an example of how each one is already used in any of the databases that we have used thus far this semester. Give as much information as you can, including ideas on why this data type was chosen. (1-8 are 10 pts each, 9 is 20 pts)

1. CHAR

CHAR is a string of characters that can be letters or numbers that is a fixed length. This is used for fields that you know will always take up the same amount of space like a telephone number or account number. This is used in the vendor\_state field of the Vendor table in the ap database since we know that the state abbreviation will always be 2 characters.

1. VARCHAR

VARCHAR is similar to CHAR being a string of characters that can be letters or numbers however it is a variable length. This is used when you don’t know how long the field will be like a last name or address. This is used most commonly and can be found in the vendor\_name field of the Vendor table in the ap database.

1. INT

INT are whole numbers that do not include a decimal point and can be BIGINT, MEDIUMINT, SMALLINT, OR TINYINT depending on the length of digits and amount of storage space you need to use. This is used in the terms\_id field in the Terms table of the ap database.

1. TINYINT

TINYINT is used when you have a Boolean like true or false fields. This can be found on the disabled field of the address table in the misc database.

1. DECIMAL

DECIMAL is used when you have a number that will also have numbers to the right of the decimal point. You can specify how many decimal places you want to use by adding that after the DECIMAL data type, for example DECIMAL(7,3) would mean that you have a number that is 7 digits in total but 3 of those will be to the right of the decimal. This data type can be found in the item\_price field of the order\_items table in the misc database.

1. TEXT

TEXT is used for a larger string with a maximum of 65,535 characters. This is good for long description fields. TEXT is used in the Preparation field of the Recipes table in the Recipes database.

1. DATETIME

DATETIME is used when you want to record a certain date and time in a field. It is different from TIMESTAMP in that TIMESTAMP will record the current date and time instead of a previous or future date and time. This can be found on the ship\_date field in the orders table in the misc database.

1. DATE

DATE is used when you only want to put a date in the field. This will not allow you to record a time. DATE is used in the payment\_date field of the invoices table in the ap database.

1. Can you find a column which might be a good candidate for a SET field in our current tables? Describe the column and its data and then give some pros and cons to this idea when you find the column.

I think the IngredientID column in the Recipe\_Ingredients table would work for a set field since you usually use more than one ingredient in recipes.